#### DOCUMENT RESUME

ED 194 267

RC 012 334

AUTHOR TITLE

Banks, Vera J.: DeAre, Diana

INSTITUTION

Farm Population of the United States: 1979.
Bureau of the Census (DOC), Suitland, Md. Population

Div.: Economics, Statistics, and Cooperatives Service

(DOA), Washington, D.C.

PUB DATE

Sep 80

NOTE
JOURNAL CIT

28p.: For related document, see ED 179 332.

Current Population Reports: Farm Population Series

p-27 n53 Sep 80

EDRS PRICE DESCRIPTORS

MF01/PC02 Plus Postage.

Age Differences: Agriculture: Birth Rate: Census Figures: \*Comparative Analysis: \*Demography: Family (Sociological Unit): \*Farmers: Income; \*Labor Force: \*Population Trends: Racial Differences: \*Rural Farm

Residents: Sex Differences: Spanish Americans

#### ABSTRACT

Based on the current definition for farm population (all persons living in rural territory on places which in the reporting year had, or normally would have had, sales of agricultural products of \$1,000 or more), an average of 6,241,000 persons lived on farms in the United States in 1979, a drop of 2.8% from the 1978 figures. Whites constituted 94%, Blacks 2.5%, and persons of Spanish origin 1.9% of all farm residents. Blacks experienced higher rates of decline than Whites. The farm population, with a median age of 34 years, had a lower proportion of young adults (20 to 34 years) and a higher proportion of middle-aged persons (35-64) than the nonfarm population. The fertility of farm women continued to be higher than that of nonfarm women. There was no statistically significant difference in the metropolitan-nonmetropolitan distribution of the farm population by race and Spanish origin. Of all farm residents 14 years old and over, 64% were in the labor force or were seeking work. The total number of persons employed solely or primarily in agriculture averaged 3,467,000. The dominance of self-employed (three-fifths) as the major class of work pertained solely to farm males. Only about 2% of the labor force living on farms was unemployed as compared with a 6% rate for the nonfarm population, but the median income of farm families (\$15,339) continued to lag behind that of nonfarm families. (CM)



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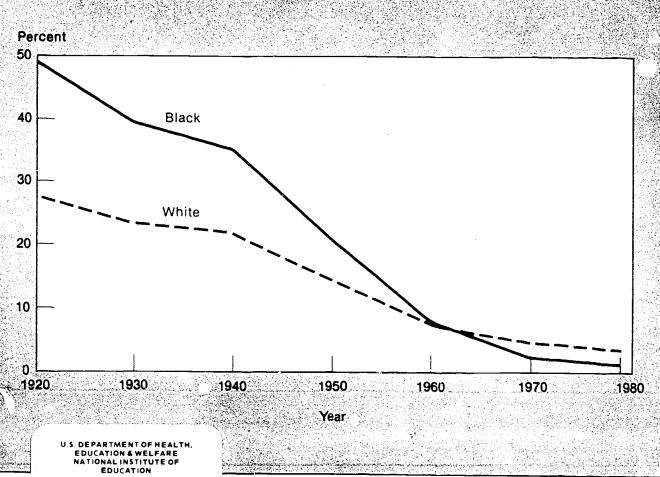
# Farm Population

Series P-27, No 53 Issued September 1980

# Farm Population of the United States: 1979



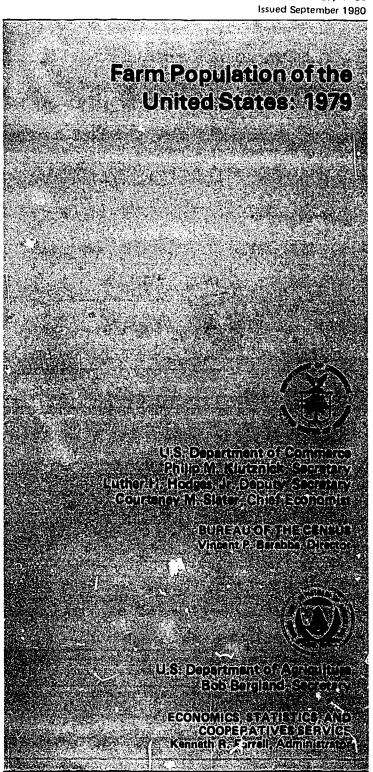




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# **Farm Population**

Series P-27, No 53



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#### **ACKNOWLEDGMENTS**

This report was prepared jointly by Vera J. Banks, Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture, and Diana DeAre, Population Division, U.S. Bureau of the Census. Statistical assistance was provided by Joyce E. Williams, U.S. Bureau of the Census, and Deborah Tillman, U.S. Department of Agriculture. Review of statistical testing and the section on "Source and Reliability of the Estimates" was provided by Louis E. Williams, Statistical Methods Division, and editorial assistance was provided by Rosa B. Taylor, Population Division, U.S. Bureau of the Census.

#### SUGGESTED CITATION

U. S. Bureau of the Census, jointly with U. S. Department of Agriculture, Current Population Reports, Series P-27, No. 53, Farm Population of the United States: 1979, U. S. Government Printing Office, Washington, D.C., 1980.

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## Contents

		Page
Intro	oduction	1
Dem	nographic and social characteristics of the farm population	1
Ecor	nomic characteristics of the farm population	4
Rela	ited reports	7
		•
	TEXT TABLES	
Tab!		
Α.	Population of the United States total and farm: April 1970 to 1979	
	Farm and nonfarm population by reas and Spanish origin; 1079.	1
	Farm and nonfarm population, by race and sour 1070	2
	Descript distribution of the formula	2
U.	referred distribution of the farm and nonfarm population, by marital status and sex:	
	March 1979	3
	Fertility characteristics of farm and nonfarm women: June 1979	4
F.	Percent distribution of the farm and nonfarm population, by race and Spanish origin	
	and metropolitan-nonmetropolitan residence: 1979	4
G.	Employment status of the farm and nonfarm population 14 years old and over, by sex:	
Н.	Farm and nonfarm residents 14 years old and over employed in agriculture, by class of	4
	worker and sex: 1979	5
١.	income characteristics of farm and nonfarm families: 1978	6
	CHADTO	
Figu		
1.	Percent of population living on farms, by race: 1920 to 1979	Cover
2.	Farm and nonfarm population, by age: 1979	3
3.	Employed farm residents, by class of worker: 1979	6
	DETAILED TABLES	
Table	e	
		_
	Farra population, by race and opanish origin and sex, for broad age groups: 1979 and 1978	_
	Matropolitan and nonmatronality as side as sid	8
٥.	Metropolitan and nonmetropolitan residence of the farm and nonfarm population, by race	
	and Spanish origin: 19/9.	9
4.	Employment status of the farm population 14 years old and over, by sex, 1979 and 1978,	
_	and by region: 1979	10
5.	Employment status of the farm population 14 years old and over, by race and sex, for	11
6.	Farm residents 14 years old and over employed in agriculture and popagricultural industries	• • •
	by class of worker and sex. 1979 and 1978, and for regions: 1979	40
7.	Farm residents 14 years old and over employed in agriculture and approximate industrial	12
•	by class of worker, race, and sex, for regions: 1979	13
E. Fertility characteristics of farm and nonfarm women: June 1979.  Percent distribution of the farm and nonfarm population, by race and Spanish origin and motropolitan-nonmetropolitan residence: 1979.  G. Employment status of the farm and nonfarm population 14 years old and over, by sex: 1979.  H. Farm and nonfarm residents 14 years old and over employed in agriculture, by class of worker and sex: 1979.  I. Income characteristics of farm and nonfarm families: 1978.  CHARTS  Figure  1. Percent of population living on farms, by race: 1920 to 1979.  Cover Farm and nonfarm population, by age: 1979.  3. Employed farm residents, by class of worker: 1979.  CDETAILED TABLES  Table  1. Farm population, by race and Spanish origin and sex, for broad age groups: 1979 and 1978.  8 Metropolitan and nonmetropolitan residence of the farm and nonfarm population, by race and Spanish origin: 1979.  4. Employment status of the farm population 14 years old and over, by sex, 1979 and 1978, and by region: 1979.  5. Employment status of the farm population 14 years old and over, by race and sex, for regions: 1979.  6. Farm residents 14 years old and over employed in agriculture and nonagricultural industries, by class of worker and sex, 1979 and 1978, and for regions: 1979.  7. Farm residents 14 years old and over employed in agriculture and nonagricultural industries, by class of worker and sex, 1979 and 1978, and for regions: 1979.  A Definitions and Explanations.		
Α.	Definitions and Explanations	14
В.	Source and Reliability of the Estimates	17
		17



111

#### **APPENDIX TABLES**

Table	l	
B-1.	Standard errors of estimated numbers of persons or families in the farm population	19
B-2.	Standard errors of estimated numbers of persons or families in the total or nonfarm population.	19
B-3.	Standard errors of estimated percentages of persons or families in the farm population	20
B-4.	Standard errors of estimated percentages of persons or families in the total or nonfarm population	20
	Parameters and factors to be used to obtain standard errors for each type of characteristic Standard errors of estimated fertility ratios for the total or nonfarm population	21 22

#### Symbols Used in Tables

- Represents zero or rounds to zero.
- B Base less than 75,000.
- X Not applicable.



#### Farm Population of the United States: 1979

#### INTRODUCTION

In the 12-month period centered on April 1979, an average of 6,241,000 persons lived on farms in rural areas of the United States. About 1 person out of every 35, or 2.8 percent of the Nation's 220 million people, had a farm residence (table A). These farm population estimates were prepared cooperatively by the U.S. Bureau of the Census and the Economics, Statistics, and Cooperatives Service of the U.S. Department of Agriculture.

The 1979 estimate of the farm population is about 260,000 lower than that of 6,501,000 for 1978, but this apparent decline is not statistically significant. The chances are about 1 out of 15 that a decline of this magnitude would have been obtained from the sample without any actual change having occurred in the farm population between 1978 and 1979. The farm population estimates for 1979 are based on the

Table A. Population of the United States, Total and Farm: April 1970 to 1979

(Numbers in thousands)

	3	Farm pop	ulation
Year	Total	Number	Percent
	resident	of	of total
	population	persons <sup>1</sup>	population
Current defi- nition			
1979	219,611	6,241	2.8
1978	217,771	6,501	3.0
Previous defi- nition	-		
1979	219,611	7,553	3.4
1978	217,771	8,005	3.7
1977	215,966	7,806	3.6
	214,282	8,253	3.9
1975	212,542	8,864	4.2
	211,018	9,264	4.4
1973	209,468	9,472	4.5
	207,802	9,610	4.6
1971	205,677	9,425	4.6
1970	<sup>2</sup> 203,235	9,712	4.8

<sup>1</sup>Five-quarter averages centered on April. (See Appendix A, Definitions and Explanations.)

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farm definition that was first introduced into this data series in 1978. Under this new definition, the farm population consists of all persons living in rural territory on places which in the reporting year had, or normally would have had, sales of agricultural products of \$1,000 or more.

Under the current definition as well as under previous definitions, the farm share of the total U.S. population continued its long-term downward trend. In 1920, when the farm population was first identified separately, 30.1 percent of the Nation's total population resided on farms. By 1950, this proportion had fallen to 15.3 percent, and by 1979 it had dropped to 2.8 percent (3.4 percent under the previous definition).<sup>1</sup>

Even though the downward trend in the number of farm residents has continued, there has been a slackening in the rate of decline in the 1970's as compared to the previous decade. Using the previous farm definition, upon which earlier data are based, the rate of loss in the farm population averaged 2.8 percent per year since 1970. This is significantly lower than the average annual rate of decline of 4.8 percent that occurred during the 1960-70 decade.

# DEMOGRAPHIC AND SOCIAL CHARACTERISTICS OF THE FARM POPULATION

Race and Spanish origin. In 1979, Whites constituted 94 percent of all farm residents, a proportion that was significantly higher than the 86 percent White among nonfarm residents (table B). There were 280,000 Blacks on farms in 1979, representing 4.5 percent of the total farm population. Blacks accounted for 11.9 percent of the nonfarm population. Only 118,000, or 1.9 percent of farm residents were of Spanish origin, whereas in the nonfarm population persons of Spanish origin accounted for 5.7 percent of the total.

The farm population has fallen sharply since the early 1900's and is still declining. During this period, Black farm residents have experienced higher rates of decline than Whites. Nearly one-half of the total Black population lived

<sup>&</sup>lt;sup>1</sup> Estimates of the farm population from 1920 to the present are not strictly comparable due to definitional changes. Prior to 1960, farm residence was based essentially on self-identification, i.e., respondents themselves determined whether they lived on a farm. From 1960 to the mid-1970's, the farm population was restricted to persons living in rural territory and was identified on the basis of acreage and dollar sales of farm products. A new farm definition, announced in 1975 and introduced into this data series in last year's report, aliminated the acreage requirement and set the sales cut-off at \$1,000.

Table B. Farm and Nonfarm Population, by Race and Spanish Origin: 1979

(Numbers in thousands. Figures are five-quarter averages centered on April)

				Perc	tion	
Race	Total	Farm	Nonfarm	Total	Farm	Nonfarm
All races	<sup>1</sup> 215,309 186,080 25,104	5,891	209,067 180,188 24,824	100.0 86.4 11.7		100.0 86.2 11.9
Spanish origin <sup>2</sup>	12,055	118	11,937	5.6	1.9	5.7

<sup>1</sup>The total U.S. population figure here differs from that shown in table A because the latter refers to the total resident population, whereas this and other tables refer only to the civilian noninstitutional population.

<sup>2</sup>Persons of Spanish origin may be of any race.

on farms on 1920, compared to just over one-fourth of the White population. By 1979, the proportions had fallen dramatically to 1.1 percent of Blacks and 3.2 percent of Whites (figure 1). During the 1970's, based on the previous farm definition, the decline in the Black farm population was 58 percent compared to a 19-percent decline among White farm residents.

One reason for the particularly large drop among Black farm residents has been the sharp decline in cotton and tobacco tenant farming in this country. Blacks have historically had a high representation among tenant farmers, and the number of such farms has fallen steadily since about the mid-1930's. With mechanization and modernization of cotton and tobacco farming, landowners have, for the most part, ceased to employ tenant labor to produce their crops.<sup>2</sup>

Other factors related to the disproportionate drop in the Black farm population include the marginal economic situation of this group, the older average age of Black farm operators than White operators, and the smaller acreage and sales of Black-operated farms.3 These conclusions are based on data from the 1974 Census of Agriculture and relate to farm operators rather than to the farm resident population. However, income data for farm resident families from the

<sup>2</sup> Data from the 1974 Census of Agriculture indicate a drop in tenancy from 17.1 to 11.3 percent between 1964 and 1974 for all farms, and a drop from 43.1 to 13.9 percent for farms operated by Blacks and persons of races other than White. See also Calvin L. Beale, "The Black American in Agriculture," in Mable M. Smythe, ed., The Black American Reference Book (Englewood Cliffs, N.J.: Prentice-Hall, 1976).

3 Age of operator and acreage and value of products sold were reported by race of operator in the 1974 Census of Agriculture, Volume 1, for individual and family operations (sole proprietorships) and for partnerships, which had annual sales of \$2,500 or more. Summary data from this source are as follows:

Operators Black and White other races Age of operator: 43.3 Percent 55 years and over 53.1 52 Median age... years.. Size of farm: 35.9 Percent under 140 acres . . 70.9 202 69 Median size . . . acres . . Value of products sold: Percent under \$20,000 . . . 53.2 \$18,279 \$9,012 Median value. . . . . . . . .

March 1979 Current Population Survey (CPS) yield a similar picture. The median income of Black farm families was only two-fifths that of White farm families in 1978, and the proportion of Black farm families in poverty was much higher (see later section on Income).

Age and sex. In 1979, there were 108 males on farms for every 100 females, whereas in the nonfarm population there were only 93 males per 100 females (table C). The lower

Table C. Farm and Nonfarm Population, by Age and Sex: 1979

(Numbers in thousands. Five-quarter averages centered on April)

	Total	Male	Female				
Age	Farm						
NUMBER							
All ages	6.2 1 2,086 1,086 2,342 727 34.1	3,240 1,066 596 1,201 378	3,002 1,020 490 1,144 349 34.7				
All ages	100.0 33.4 17.4 37.5 11.6	100.0 32.9 18.4 37.1 11.7	100.0 34.0 16.3 38.1 11.6				
		Nonfarm					
NUMBER							
All ages	209,067 68,628 52,370 65,570 22,500	100,659 34,807 25,329 31,333 9,192 28.7					
PERCENT DISTRIBUTION							
All ages	100.0 32.8 25.0 31.4 10.8	100.0 34.6 25.2 31.1 9.1	31.2 24.9				



representation of females in the farm population, as compared to the nonfarm population, is most pronounced among young adults in their twenties and again after age 60—when women have the highest probabilities of being single and widowed, respectively. The relatively high sex ratios for farm residents at these ages probably reflect a tendency toward increased outmigration of young farm women as they reach maturity, and of older farm women upon the loss of a spouse. As a result, a higher proportion of farm women, in comparison to nonfarm women, were married with husband present and a lower proportion were separated, divorced, or widowed (table D).

Table D. Percent Distribution of the Farm and Nonfarm Population, by Marital Status and Sex: March 1979

Sex and marital status	Total	Farm	Nonfarm
Female, 14 years			
and over	100.0	100.0	100.0
Single (never married)	24.2	23.4	24.2
Married, husband present	54.5	66.9	54.1
Married, husband absent	3.5	1.2	3.5
Widowed	11.8	7.7	11.9
Divorced	6.0	0.8	6.2
Male, 14 years and			
over	100.0	100.0	100.0
Single (never married)	31.1	31.7	31.1
Married, wife present	59.6	63.1	59.5
Married, wife absent	2.6	1.3	2.7
Widowed	2.4	1.9	2.4
Divorced	4.3	2.1	4.4

Source: Data from the March 1979 Current Population Survey.

The farm population had an older age structure than the nonfarm population and thus a higher median age. In 1978, the median age of the farm population was about 34 years, as compared with about 30 years for nonfarm residents (table C). Although there was no significant difference in the proportions of children and teenagers, and of the elderly (figure 2), the farm population had a lower proportion of young adults (20 to 34 years) and a higher proportion of middle-aged persons (35 to 64 years) than the nonfarm population.

Fertility. The fertility of farm women, with their relatively large proportion married, continued to be higher than that of nonfarm women. Data for June 1979 (table E) indicate that the average number of children born to farm women 18 to 44 years of age (1,911 per 1,000 women) was significantly higher than the average born to nonfarm women of comparable age (1,529 per 1,000 women).

For women 18 to 34 years of age reporting on birth expectations in June 1979, expected lifetime births were also higher for farm women than for nonfarm women. The average number of lifetime births expected by farm women in this age group was 2,349 per 1,000 women, compared to an estimated 2,066 births per 1,000 nonfarm women. There is some evidence that both the number of births to date and the number of future births expected were higher for farm than nonfarm women.

Distribution. The great majority of all farm residents lived in nonmetropolitan counties; just 17 percent of the farm

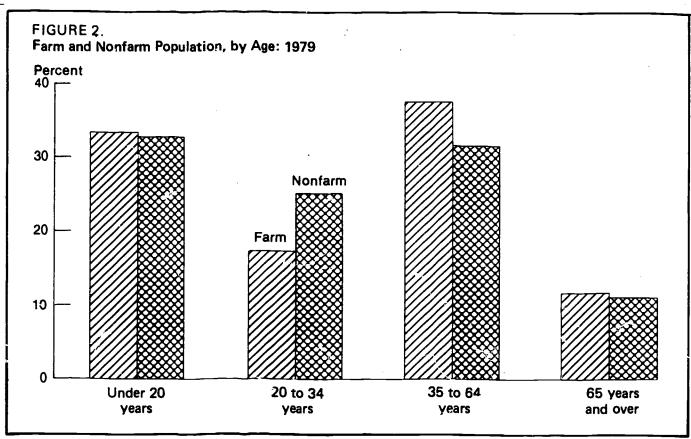




Table E. Fertility Characteristics of Farm and Nonfarm Women: June 1979

Characteristic	Total	Farm	Nonfarm
CHILDREN EVER BORN PER 1,000 WOMEN			
Age of women: Total, 18 to 44 years	1,538 452 1,214 1,890 2,569 2,996	1,911 340 1,562 2,411 2,942 3,490	1,529 455 1,208 1,878 2,558 2,978
Births to date per 1,000 women	1,144	1,301	1,140
Future births expected per 1,000 women	928	1,048	926
Lifetime births expected per 1,000 women	2,072	2,349	2,066

Data limited to women reporting on birth expectations.

Source: Data from the June 1979 Current Population Survey.

total lived within the boundaries of standard metropolitan statistical areas (SMSA's) in 1979 (table F). In contrast, 69 percent of the nonfarm population lived within SMSA boundaries. Metropolitan farm residents were primarily concentrated in the smaller SMSA s—three-fourths resided in the rural parts of areas of less than 1 million population (table 3).

There was no statistically significant difference in the metropolitan-nonmetropolitan distribution of the farm popu-

Table F. Percent Distribution of the Farm and Nonfarm Population, by Race and Spanish Origin and Metropolitan-Nonmetropolitan Residence: 1979

(percentages are based on five-quarter averages centered on April)

Race and residence	Total	Farm	Non farm
ALL RACES			
United States	100.0	100.0	100.0
Inside SMSA's1	67.5	17.0	69.0
Outside SMSA's	32.5	83.0	31.0
WHITE			
United States	100.0	100.0	100.0
Inside SMSA's	66.1	17.3	67.7
Outside SMSA's	33.9	82.7	32.3
BLACK			
United States	100.0	100.0	100.0
Inside SMSA's	76.1	11.1	76.9
Outside SMSA's	23.9	88.9	23.1
SPANISH ORIGIN <sup>2</sup>			
United States	100.0	100.0	100.0
Inside SMSA's	84.2	15.3	84.8
Outside SMSA's	15.8	84.7	15.2

<sup>1</sup>SMSA's refers to standard metropolitan statistical areas as designated in the 1970 census publications. (See Appendix A, Definitions and Explanations.)

<sup>2</sup>Persons of Spanish origin may be of any race.

lation by race and Spanish origin. In 1979, 89 percent of the Black farm population resided in nonmetropolitan areas; the comparable proportion for Whites was 83 percent and for persons of Spanish origin, 85 percent. Among nonfarm residents, however, Blacks were more likely than their White counterparts to be in metropolitan areas, but less likely than the Spanish origin population.

# ECONOMIC CHARACTERISTICS OF THE FARM POPULATION

Labor force participation. In 1979, 3.2 million, or 64 percent, of all farm residents 14 years old and over were in the labor force, either employed or seeking work (table G). The labor

Table G. Employment Status of the Farm and Nonfarm Population 14 Years Old and Over, by Sex: 1979

(Numbers in thousands. Figures are five-quarter averages centered on April)

Sex and employment status	Farm	Nonfarm
Both sexes	4,984	163,991
In labor force	3,180	100,980
Percent of total	63.8	61.6
Employed	3,113	94,862
Unemployed	66	6,118
Percent of labor force	2.1	6.1
Not in labor force	1,804	63,010
Male	2,602	77,646
In labor force	2,124	58.248
Percent of total	81.6	75.0
Employed	2,094	55.097
Unemployed	30	3,151
Percent of labor force	1.4	5.4
Not in labor force	479	19,398
Female	2,381	86,345
In labor force	1,056	42,733
Percent of total	44.4	49.5
Employed	1.019	39,765
Unemployed	36	2,968
Percent of labor force	3.4	6.9
Not in labor force	1,326	43,612

force participation rate for farm residents was slightly higher than the rate (62 percent) for nonfarm residents. This difference can be accounted for by variations in the farm and nonfarm participation rates by sex. Farm resident men had a higher rate of labor force participation than nonfarm men. On the other hand, although the labor force participation of farm women had increased from 30 to 44 percent between 1960 and 1979, their level still falls below that of nonfarm women. About 49 percent of all nonfarm females 14 years old and overwere either working or looking for a job in 1979.

Labor force participation rates in 1979 for White and Black farm residents were 64 percent and 57 percent, respectively (table 5). However, this apparent disparity in the level of labor force participation was not statistically significant.

Agricultural and nonagricultural employment. The total number of persons employed solely, or primarily in the case of multiple jobholders, in agriculture averaged 3,467,000 in 1979 (table H). In contrast to earlier years, agricultural



Table H. Farm and Nonfarm Residents 14 Years Old and Over Employed in Agriculture, by Class of Worker and Sex: 1979

(Numbers in thousands. Figures are five-quarter averages centered on April)

				Perce	nt distribution		
Class of worker	Both sexes	Male	Female	Both sexes	Male	Female	
Total agricultural workers	3,467	2,769	698	100.0	100.0	100.0	
Self-employed workers	1,603 1,506	1,437 1,192	166 313	46,2 43.4	51.9 43.0	23.8 44.8	
Unpaid family workers	358	140	218	10.3	5.1	31.2	
Farm resident agricultural workess.	1,661	1,331	330	100.0	100.0	100.0	
Self-employed workers	1,040 341	944 282	96 58	62.6 20.5	70.9 21.2	29.1 17.6	
Unpaid family workers	260	105	175	16.9	7.9	53.0	
Nonfarm resident agricultural		·					
workers	1,806	1,438	368	100.0	100.0	100.0	
Self-employed workers	563	493	70	31.2	34.3	19.0	
Wage and salary workers Unpaid family workers	1,165	910 35	255 43	64.5 4.3	63.3	69.3 11.7	

workers were just about as likely to live in nonfarm households as on a farm. In 1979, farm and nonfarm residents constituted 48 percent and 52 percent of all agricultural workers, respectively. Persons living on farms comprised 75 percent of all agricultural workers in 1960 and 63 percent in 1970. The decline in the proportion of agricultural workers living on farms is largely due to the general trend among farm wage workers to commute from nonfarm residences to farm jobs. In 1979, about 3 out of every 4 wage and salary agricultural workers did not reside on farms.

Although farm residents overall were more likely to be employed in agricultural than in nonagricultural industries, there were significant differences by sex (table 4). Farm males were most often employed in agriculture (63 percent), whereas employed farm females most often had a nonfarm job (65 percent). The high representation of farm females engaged in nonagricultural work reflects, at least in part, the importance of supplemental nonfarm income to farm families. Data on income of farm operator families by major source of income reveal that in 1978, about two-fifths of the total income for farms with agricultural product sales of \$2,500 and over came from nonfarm sources.<sup>4</sup>

Employment in nonagricultural industries was more prevalent for farm residents in the Southern States than for persons on farms in the combined Northern and Western States. In 1979, 53 percent of the southern farm resident labor force worked in nonfarm jobs; outside the South, the proportion was 42 percent. This regional disparity reflects not only the need for supplemental income because of a large number of low-income farms in the South, but also the increased availability of nonfarm job oppor-

<sup>4</sup>U.S. Department of Agriculture, Farm Income Statistics, Statistical Bulletin No. 627, Economics, Statistics, and Cooperatives Service, Oct. 1979.

tunities. According to the 1974 agricultural census, 47 percent of all southern farm operators spent half or more of their work time at nonfarm occupations. In contrast, only 31 percent of the farm operators in the Northern and Western States, indicated that farming was not their principal occupation.

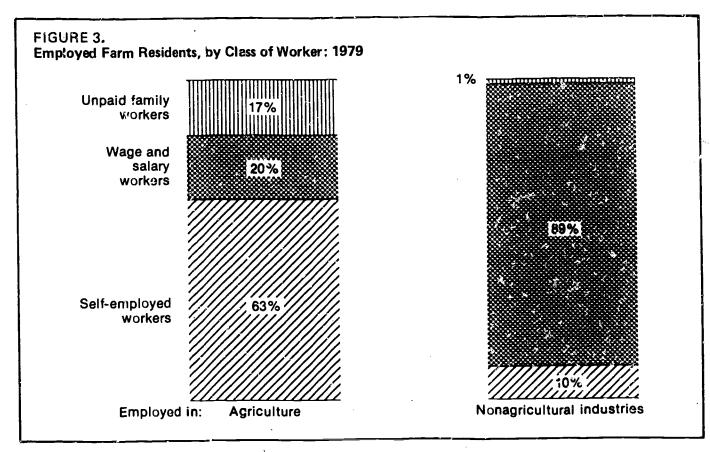
ciass of worker. Of the 1.7 million farm residents employed in agriculture in 1979, about three-fifths were self-employed (table H and figure 3). The dominance of self-employment as the major class of work pertained only to farm males, however, as about half of farm women employed in agriculture were unpaid family workers. Although they are more often classified as unpaid family workers, farm women are an important source of labor.

The majority of persons self-employed in agriculture are farm residents, but as for farm wage and salary workers, a sizeable proportion do not live on a farm. Of the 1.6 million persons whose sole or primary work in 1979 was self-employment in agriculture, 35 percent had a nonfarm residence (table H). Data from the census of agriculture on farm operators, who comprise the great bulk of persons self-employed in agriculture, reveal that most nonresident farm operators live in urban areas. In 1974, three-fourths of the operators who did not live on a farm resided in cities, towns, and other urban areas; the remaining fourth lived in rural areas. §

There were about 1.5 million persons who resided on farms and worked in nonagricultural industries in 1979. These farm resident nonagricultural employees were predominantly wage and salary workers (figure 3), regardless of their sex or region of residence (table 6).



<sup>&</sup>lt;sup>5</sup>U.S. Department of Commerce, Bureau of the Census. 1974 Census of Agriculture. *United States: Summary and State Data.* Vol. 1, Pt. 51, Washington, D.C. 1977.



Unemployment. The rate of unemployment (the proportion of the civilian labor force currently without a job and looking for work) was relatively low in the farm population. In 1979, about 2 percent of the labor force living on farms was unemployed; the comparable rate in the nonfarm population was 6 percent (table G). The high incidence of holding two or more jobs among persons employed in agriculture is thought to contribute to lower unemployment among farm residents. For example, when a farm operator with dual employment loses his nonfarm job, that person is still counted as employed on the basis of farm work. In 1978, 905,000 multiple jobholders, one-fifth of the national total, had at least one job in agriculture. Of this group, two-thirds combined a primary job as a nonagricultural wage and salary worker with self-employment in agriculture-mainly on their own farms—as a secondary job. 8

Although there is some evidence of racial disparity in the farm unemployment rates, the rates for both Whites and Blacks were lower than the corresponding rates for the nonfarm population. In 1979, the rates of unemployment for White and Black farm residents were 2 percent and 6 percent, respectively (table 5). Although the data are not shown in the tables, the comparable nonfarm rates were 5 percent for Whites and 13 percent for Blacks.

Income. Data from the March 1979 CPS showed that families residing on farms experienced a larger increase in real income than did nonfarm families between 1977 and 1978. The

<sup>6</sup>U.S. Department of Labor, Bureau of Labor Statistics, Multiple Jobholders, in May 1978, Special Labor Force Report 221, 1579.

1978 median income for farm families represented a 16.5percent increase in real terms over the 1977 median, whereas the median for nonfarm families represented only a 2.1percent increase. Nevertheless, the median income of farm families continued to jag behind that of nonfarm families.

Table I. Income Characteristics of Farm and Nonfarm Families: 1978

Family income	Total	Vəra	Nonfarm
Total familiesthousands	57,804	1,703	56, 101
Families by 1978 income	100.0	100.0	100.0
Less than \$4,000 or loss	5.6	9.8	5.4
\$4,000 to \$6,599	8.6	10.1	8.6
\$7,000 to \$9,999	9.5	10.6	9.8
\$10,000 to \$14,999	16.7	17.8	16.7
\$15.000 to \$19,999	16.9	15.3	16.9
\$20,000 to \$24,999	14. :	12.1	14.6
\$25.000 and over	27.9	24.3	28.0
Median Family Income			
(1978 dollars)			
Current definition:			•
1978	17,639	15,339	17,710
1977	17,225	13,165	17, 352
Previous definition:		. <u>.</u>	
1978	17,639	15,283	17,73
1977	17,225	13.597	17,367
1976	17,127	13,359	17,25
1973	16,614	13,139	16,75
1974	17,054	14,031	17,17
1973	17.675	14,740	17,83
1972	17,319	13,798	17,50
1971	16,553	11,582	16,80
1970	16,562	11,380	16,81



In 1978, the median income for farm families was \$15,339, only 87 percent of the \$17,710 median for nonfarm families (table I).

There is a particularly sharp contrast in income levels by race within the farm population. Although not shown in the tables, the median income of Black farm families under the previous farm definition was \$6,813 in 1978, only about two-fifths of the \$15,562 median for White farm families. The proportion of Black farm families below the poverty level was 36 percent, about 3.5 times higher than that for White farm families.<sup>7</sup>

#### **RELATED REPORTS**

Comparable figures for 1978 appear in Current Population Reports, Farm Population of the United States: 1978,

Series P-27, No. 52, and earlier reports published annually beginning in 1961.

Beginning with 1972, the data are not strictly comparable with data for earlier years because of adjustments in sample design and survey procedures occasioned by 1970 census data. Application of 1972 procedures to data for March 1970 lowered the farm population 14 years old and over by about 75,000. In 1976, revisions were made in the processing procedure for determining farm-nonfarm residence of the rural population. The revisions lowered the total farm population by an estimated 130,000. In 1978, a new farm definition was introduced into the data series. The effects are examined in detail in Series P-27, No. 52.

Although not fully comparable with the Current Population Survey, farm population figures for 1970 for the United States, States, and counties appear in chapter C of 1970 Census of Population Volume 1, Characteristics of the Population; characteristics of the farm population by State are presented in chapter D.



<sup>&</sup>lt;sup>7</sup> See Current Population Reports, Series P-60, No. 120, Money Income and Poverty Status of Families and Persons in the United States: 1978 (Advance Report).

Table 1. Farm Population, by Race and Spanish Origin and Sex, for Broad Age Groups: 1979 and 1978

(Numbers in thousands. Figures are five-quarter averages centered on April. For meaning of symbols, see text)

	Both sexes		Male		Female		Percent distribution					
Race and age							Both sexes		Male		Female	
	1979	1978	1979	1978	1979	1978	1979	1978	1979	1978	1979	1978
All races	6,241	6,501	3,240	3,396	3,002	3,105	100.0	100.0	100.0	100.0	100.0	100.0
Under 14 years 14 years and over	1,258 4,984	1,315 5,186	637 2,602	681 2,715	621 2,381	634 2,472	20.2 79.9	20.2 79.8	19.7 86 3	20.1 79.9	20.7 79.3	20.4 79.6
White	5,891	6,064	3,053	3,165	2,838	2,899	100.0	100.0	100.0	100.0	100.0	100.0
Under 14 years 14 years and over	1,167 4,725	1,198 4,866	592 2,461	624 2,541	575 2,263	574 2,325	19.8 80.2	19.8 80.2	19.4 80.6	19.7 80.3	20.3 79.7	19.8 80.2
Black	280	349	146	186	134	163	100.0	100.0	100.0	100.0	100.0	100.0
Under 14 years 14 years and over	75 205	98 252	36 110	46 140	40 94	52 112	26.8 73.2	28.1 72.2	24.7 75.3	24.7 75.3	29.9 70.1	31.9 68.1
Spanish origin <sup>1</sup>	118	90	62	53	56	37	100.0	100.0	(B)	(B)	(B)	(B)
Under 14 years 14 years and over	46 72	2 6 64	22 41	15 38	24 31	11 26	39.0 61.0	28.9 71.1	(B)	(B)	(B)	(B) (B)

<sup>&</sup>lt;sup>1</sup>Persons of Spanish origin may be of any race.

Table 2. Farm Population, by Age and Sex: 1979

(Numbers in thousands. Figures are five-quarter averages centered on April)

				Percei	nt distributi	lon
Age	Both sexes	Male	Female	Both sexes	Male	Female
All ages	6,241	3,240	3,002	100.0	100.0	100.0
Under 14 years	1.258	637	621	20.2	19.7	20.7
34 to 19 years	828	429	399	13.3	13.2	13.3
20 to 24 years	459	263	196	7.4	8.1	6.5
25 to 29 years	314	182	132	5.0	5.6	4.4
30 to 34 years	313	151	162	5.0	4.7	5.4
35 to 39 years	363	177	187	5.8	5.5	6.2
40 to 44 years	361	179	183	5.8	5.5	6.1
45 to 49 years	362	185	177	5.8	5.7	5.9
50 to 54 years	439	219	220	7.0	6.8	7.3
55 to 59 years	446	231	215	7.1	7.1	7.2
60 to 64 years	371	210	162	5.9	6.5	5.4
65 years and over	727	378	349	11.6	11.7	11.6



Table 3. Metropolitan and Nonmetropolitan Residence of the Farm and Nonfarm Population, by Race and Spanish Origin: 1979

(Numbers in thousands. Figures are five-quarter averages centered on April)

Race and residence				Perce	ent distributi	lon
Race and residence	Total	Farm	Nonfarm	Total	Farm	Nonfarm
ALL RACES						
United States	<sup>1</sup> 215,309 145,382	6,241	209,067	100.0	100.0	100.0
SMSA's of 1 million or more	82,669	1,061   264	144,320 82,405	67.5 38.4	17.0	69.0 39.4
SMSA's of less than 1 million	62,713	797	61,916	29.1	12.8	29.6
Outside SMSA's	69,927	5,180	64,747	32.5	83.0	31.0
WHITE						,
United States	186,080	5,891	180,188	100.0	100.0	100.0
Inside SMSA's	123,064	1,022	122,042	66.1	17.3	67.7
SMSA's of 1 million or more	68,226	260	67,966	36.7	4.4	37.7
SMSA's of less than 1 million	54,838	762	54,076	29.5	12.9	30.0
Outside SMSA's	63,016	4,869	58,146	33.9	82.7	32.3
BLACK						
United States	25,104	280	24,824	100.0	100.0	100.0
Inside SMSA's	19,110	31	19,079	76.1	11.1	76.9
SMSA's of 1 million or more	12,366	1	12,365	49.3	0.4	49.8
SMSA's of less than 1 million	6,744	30	6,714	26.9	10.7	27.0
Outside SMSA's	5,994	249	5,745	23.9	88.9	23.1
SPANISH ORIGIN <sup>3</sup>						
United States	12,055	118	11,937	100.0	100.0	100.0
Inside SMSA's	10,145	18	10,128	84.2	15.3	84.8
SMSA's of 1 million or more	6,730	6	6,724	55.8	5.1	56.3
SMSA's of less than 1 million	3,415	12	3,403	28.3	10.2	28.5
Outside SMSA's	1,909	100	1,809	15.8	84.7	15.2

<sup>&</sup>lt;sup>1</sup>The total U.S. population figure shown here differs from that shown in table A because the latter refers to the total resident population, whereas this and other tables refer only to the civilian noninstitutional population.



<sup>&</sup>lt;sup>2</sup>SMSA's refers to standard metropolitan statistical areas as designated in the 1970 census publications; see "Definitions and Explanations."

<sup>&</sup>lt;sup>3</sup>Persons of Spanish origin may be of any race.

Table 4. Employment Status of the Farm Population 14 Years Old and Over, by Sex, 1979 and 1978, and by Region: 1979

(Numbers in thousands. Figures are five-quarter averages centered on April)

					P	ercent di	stributio	n
Sex and employment status	United	States	North and West	South	United	United States		South
	1979	1978	1979	1979	1979	1978	1979	1979
Both sexes In labor force Not in labor force	4,984	5,186	3,189	1,795	100.0	100.0	100.0	100.0
	3,180	3,273	2,078	1,102	63.8	63.1	65.2	61.4
	1,804	1,914	1,111	693	36.2	36.9	34.8	38.6
In labor force	3,180	3,273	2,078	1,102	100.0	100.0	100.0	100.0
	3,113	3,199	2,041	1,072	97.9	97.7	98.2	97.3
	1,661	1,774	1,176	484	52.2	54.2	56.6	43.9
	1,453	1,426	866	587	45.7	43.6	41.7	53.3
	66	73	37	30	2.1	2.2	1.8	2.7
Male In labor force Not in labor force	2,602	2,715	1,666	936	100.0	100.0	100.0	100.0
	2,124	2,211	1,390	734	81.6	81.4	83.4	78.4
	479	504	276	202	18.4	18.6	16.6	21.6
In labor force	2,124	2,211	1,390	734	100.0	100.0	100.0	100.0
	2,094	2,179	1,374	720	98.6	98.6	98.8	98.1
	1,331	1,430	931	401	62.7	64.7	67.0	54.6
	763	749	444	319	35.9	33.9	31.9	43.5
	30	32	16	14	1.4	1.4	1.2	1.9
Female In labor force Not in labor force	2,381	2,472	1,522	859	100.0	100.0	100.0	100.0
	1,056	1,061	687	368	44.4	42.9	45.1	42.8
	1,326	1,410	834	491	55.7	57.0	54.8	57.2
In labor force	1,056	1,061	687	368	100.0	100.0	100.0	100.0
	1,019	1,020	667	351	96.5	96.1	97.1	95.4
	330	344	246	84	31.3	32.4	35.8	22.8
	690	676	422	268	65.3	63.7	61.4	72.8
	36	41	20	16	3.4	3.9	2.9	4.3



Table 5. Employment Status of the Farm Population 14 Years Old and Over, by Race and Sex, for Regions: 1979 (Numbers in thousands. Figures are five-quarter averages centered on April. For meaning of symbols, see text)

				Perc	ent distribu	nt distribution		
Race, sex, and employment status	United States	North and West	South	United States	North and West	South		
WHITE								
Both sexes  In labor force  Not in labor force	4,725	3,137	1,588	100.0	100.0	100.0		
	3,039	2,052	987	64.3	65.4	62.2		
	1,686	1,085	601	35.7	34.6	37.8		
In labor force	3,039 2,981 1,590 1,391 57	2,052 2,016 1,161 856 35	987 965 429 536 22	100.0 98.1 52.3 45.8	100.0 98.2 56.6 41.7 1.7	100.0 97.8 43.5 54.3 2.2		
Male In labor force Not in labor force	2,461	1,636	825	100.0	100.0	100.0		
	2,022	1,370	652	82.2	83.7	79.0		
	440	266	173	17.9	16.3	21.0		
In labor force	2,022	1,370	652	100.0	100.0	100.0		
	1,997	1,354	643	98.8	98.8	98.6		
	1,270	918	352	62.8	67.0	54.0		
	727	437	291	36.0	31.9	44.6		
	25	15	9	1.2	1.1	1.4		
Female In labor force Not in labor force	2,263	1,501	763	100.0	100.0	100.0		
	1,017	(32	335	44.9	45.4	43.9		
	1,246	819	428	55.1	54.6	56.1		
In labor force	1,017	682	335	100.0	100.0	100.0		
	984	663	322	96.8	97.2	96.1		
	320	243	77	31.5	35.6	23.0		
	664	418	245	65.3	61.3	73.1		
	33	20	13	3.2	2.9	3.9		
BLACK								
Both sexes  In labor force  Not in labor force	205	5	199	100.0	(B)	100.0		
	116	5	112	56.6	(B)	56.3		
	89	2	87	43.4	(B)	43.7		
In labor force  Employed  Agriculture  Nonagricultural industries  Unemployed	116 108 57 51 7	5 5 4 1 -	112 104 54 50 8	100.0 93.1 49.1 44.0 6.0	(B) (B) (B) (B)	100.0 92.9 48.2 44.6 7.1		
Male In labor force Not in labor force	110	4	107	100.0	(B)	100.0		
	83	3	80	75.5	(B)	74. <b>8</b>		
	28	1	27	25.5	(B)	25.2		
In labor force	83 79 50 29 4	3 3 3 - -	80 75 47 28 4	60.2	(B) (B) (B) (B)	100.0 93.8 58.8 35.0 5.0		
Female In labor force Not in labor force	94	2	92	100.0	(B)	100.0		
	33	1	32	35.1	(B)	34.8		
	61	1	60	64.9	(B)	65.2		
In labor force	33 30 7 23 3	1 1 1 1	32 29 7 22 3	(B) (B)	(B) (B) (B) (B)	(B) (B) (B) (B)		



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Table 6. Farm Residents 14 Years Old and Over Employed in Agriculture and Nonagricultural Industries, by Class of Worker and Sex, 1979 and 1978, and for Regions: 1979

(Numbers in thousands. Figures are five-quarter averages centered on April. For meaning of symbols, see text)

					P	ercent di	stributio	n
Sex and class of worker	United	States	North and West	South	United States		North and West	South
	1979	1978	1979	1979	1979	1978	1979	1979
TOTAL AGRICULTURAL WORKERS				بوالان				
Both sexes	1,661	1,774	1,176	484	100.0	100.0	100.0	100.0
Self-employed workers	1,040	1,086	744	296	62.6	61.2	63.3	61.2
Wage and salary workers	341	383	206	135	20.5	21.6	17.5	27.9
Unpaid family workers	280	305	226	54	16.9	17.2	19.2	11.2
Male	1,331	1,430	931	401	100.0	100.0	100.0	100.0
Self-employed workers	944	996	678	266	70.9	69.7	72.8	66.3
Wage and salary workers	282	322	168	114	21.2	22.5	18.0	28.4
Unpaid family workers	105	112	85	20	7.9	7.8	9.1	5.0
Female	330	344	246	84	100.0	100.0	100.0	100.0
Self-employed workers	96	90	66	29	29.1	26.2	26.8	34.5
Wage and salary workers	58	61	38	21	17.6	17.7	15.4	25.0
Unpaid family workers	175	193	142	34	53.0	56.1	57.7	40.5
TOTAL NONAGRICULTURAL WORKERS								
Both sexes	1,453	1,426	866	587	100.0	100.0	100.0	100.0
Self-employed workers	146	136	86	59	10.0	9.5	9.9	10.1
Wage and salary workers	1,292	1,276	770	522	88.9	89.5	88.9	88.9
Unpaid family workers	15	13	8	7	1.0	0.9	0.9	1.2
Male	763	749	444	319	100.0	100.0	100.0	100.0
Self-employed workers	101	93	60	42	13.2	12.4	13.5	13.2
Wage and salary workers	660	656	384	277	86.5	87.6	86.5	86.8
Unpaid family workers	1	-	1	1	. 0.1	, <b>-</b>	0.2	0.3
Female	690	676	42.2	268	100.0	100.0	100.0	100.0
Self-employed workers	44	43	2.7	17	6.4	6.4	6.4	6.3
Wage and salary workers	632	620	388	245	91.6	91.7	91.9	91.4
Unpaid family workers	13	· 13	7	6	1.9	1.9	1.7	2.2

Table 7. Farm Residents 14 Years Old and Over Employed in Agriculture and Nonagricultural Industries, by Class of Worker, Race, and Sex, for Regions: 1979

(Numbers in thousands. Figures are five-quarter averages centered on April. For meaning of symbols, see text)

	_ ، ا							Pe	rcent di	stributi	on	
Race, sex, and class	Ag	ricultur workers	al	Non	agriculti workers	iral	Agricultural workers			Nonagricultural workers		
	United States	North and West	South	United States	North and West	South	United States	North and West	South	United States	North and West	South
WHITE				_			_		·			
Both sexes Self-employed workers Wage and salary workers Unpaid family workers	1,590 1,020 293 277	1,161 739 198 225	429 282 95 52	1,391 143 1,233 15	856 85 763 8	536 58 471 7	100.0 64.2 18.4 17.4	100.0 63.7 17.1 19.4	100.0 65.7 22.1 12.1	100.0 10.3 88.6 1.1	100.0 9.9 89.1 0.9	100.0 10.8 87.9 1.3
Male	1,270 926 240 103	918 672 161 84	352 254 79 19	727 100 626 1	437 60 377 1	291 40 249 1	100.0 72.9 18.9 8.1	100.0 73.2 17.5 7.2	100.0 72.2 22.4 5.4	100.0 13.8 86.1 0.1	100.0 13.7 86.3 0.2	100.0 13.7 85.6 0.3
Female	320 94 52 174	243 66 37 142	77 28 16 33	664 44 607 13	418 27 385 7	245 18 222 6	100.0 29.4 16.3 54.4	100.0 27.2 15.2 58.4	100.0 36.4 20.8 42.9	100.0 6.6 91.4 2.0	100.0 6.5 92.1 1.7	100.0 7.3 \90.6 2.4
BLACK												
Both sexes Self-employed workers Wage and salary workers Unpaid family workers	57 14 42 2	4 1 3 -	54 13 39 2	51 1 50 -	1 - 1	50 1 49	(B) (B) (B)	(B) (B) (B) (B)	(B) (B) (B)	(B) (B) (B) (B)	(B) (B) (B) (B)	(B) (B) (B)
Male Self-employed workers Wage and salary workers Unpaid family workers	50 13 36 1	3 1 2	47 12 34 1	29 1 28 -	-	28 1 27	(B) (B) (B)	(B) (B) (B)	(B) (B) (B)	(B) (B) (B)	(B) (B) (B) (B)	(B) (B) (B)
Female Self-employed workers Wage and salary workers Unpaid family workers	7 1 6 1	1 - 1	7 1 5 1	23 23 -	1 - 1	22 - 22 -	(B) (B) (B) (B)	(B) (B) (B) (B)	(B) (B) (B) (B)	(B) (B) (B) (B)	(B) (B) (B) (B)	(B) (B) (B)



#### Appendix A. Definitions and Explanations

Population coverage. With the exception of the total population shown in table A, all figures in this report relate to the civilian noninstitutional population. The total population shown in table B (215, 309,000) differs from the estimated April 1, 1979 total civilian population (219,611,000) chiefly in excluding the institutional population.

Farm population. In the Current Population Survey, the farm population as currently defined consists of all persons living in rural territory on places from which \$1,000 or more of agricultural products were sold, or normally would have been sold, in the reporting year (for the CPS the preceding 12 months). Persons in institutions, summer camps, motels, and tourist camps, and those living on rented places where no land is used for farming, are classified as nonfarm.

Under the previous farm definition, in use in this data series from 1960 through 1977, the farm population consists of all persons living in rural territory on places of 10 or more acres if at least \$50 worth of agricultural products were sold from the place in the reporting year. It also includes those living on places of under 10 acres if at least \$250 worth of agricultural products were sold from the place in the reporting year.

Farm residence under the current and previous farm definitions was determined in the Current Population Survey by the responses to two questions. Owners (and renters) are first asked "Does this place (you rent) have 10 or more acres?" They are then asked "During the past 12 months, how much did sales of crops, livestock and other farm products from this place amount to?" The respondents are given a choice of four answers: "\$1,000 or more," "\$250 to \$399," "\$50 to \$249," and "Under \$50."

Farms located within the boundaries of urban territory, comprising a small minority of all farms, are not treated as farms for population census purposes, and their population is not included in the farm population. Urban territory includes all places with a population 2,500 or more and the densely settled urbanized fringe areas around cities of 50,000 or more. Beginning with the 1972 estimate, the estimated farm population is limited to the rural territory as determined in the 1970 Census of Population. In the Current Population Surveys of 1963 through 1971, the urban-rural boundaries used were those of the 1960 Census of Population and did not take into account the annexations and other substantial expansions of urban territory that were incorporated into the 1970 Census of Population. The net effect was to classify an unknown number of persons as rural farm in the Current Population Surveys of 1970 and 1971 who were treated as urban (and hence nonfarm) in the 1970 census as well as in the Current Population Surveys beginning in 1972.

Nonfarm population. The nonfarm population comprises all persons living in urban areas and all rural persons not on farms.

Five-quarter averages centered on April. April-centered annual averages of the farm population for the years 1970 through 1979 were computed by using data for the five quarters centered on the April date for which the estimate was being prepared. For example, for April 1979, quarterly estimates for the months of October 1978, and January, April, July, and October 1979, were used with a weight of one-eighth given to each of the two October estimates and a weight of one-fourth to each of the estimates for the other 3 months. One reason for the choice of April as the date for centering population estimates is that this is the decennial cassus month.

April-centered annual averages for persons under 14 years by race and sex, and for persons 14 years old and over, by race, sex, age, labor force characteristics, and region were also computed for 1979 by using data for the specified characteristics for the five quarters centered on April 1979.

Metropolitan-nonmetropolitan residence. The population residing in standard metropolitan statistical areas (SMSA's) constitutes the metropolitan population. The metropolitan population in this report is based on SMSA's as defined in the 1970 population census publications and does not include any subsequent additions or changes. For the 1970 census, except in New England, an SMSA was defined as a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more, or "twin cities" with a combined population of at least 50,000. In addition to the county, or counties, containing such a city or cities, contiguous counties were included in an SMSA if, according to certain criteria, they were essentially metropolitan in character and were socially and economically integrated with the central county. In New England, SMSA's consist of towns and cities, rather than counties.

Geographic regions. The major regions of the United States for which data are presented represent groups of States, as follows:

North and West: Northeast, North Central, and West regions combined.

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.

North Central: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.



South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia.

Age. The age classification is based on the age of the person at last birthday.

Race. The population is divided into three groups on the basis of race: White, Black, and "other races." The last category includes Indians, Japanese, Chinese, and any other race except White and Black.

Persons of Spanish origin. Persons of Spanish origin in this report were determined on the basis of a question that asked for self-identification of the person's origin or descent. Respondents were asked to select their origin (or the origin of some other household member) from a "flash card" listing ethnic origins. Persons of Spanish origin, in particular, were those who indicated that their origin was Mexican, Puerto Rican, Cuban, Central or South American, or some other Spanish origin. It should be noted that persons of Spanish origin can be of any race.

Marital status. The marital status classification identifies four major categories: single (never married), married, widowed, and divorced. These terms refer to the marital status at the time of the enumeration.

The category "married" is divided into "married, spouse present," and "married, spouse absent." A person was classified as "married, spouse present" if the husband or wife was reported as a member of the household, even though he or she may have been temporarily absent on business or on vacation, visiting, in a hospital, etc., at the time of the enumeration. Persons reported as "married, spouse absent" include those with legal separations, those living apart with intentions of obtaining a divorce, and other persons permanently or temporarily separated because of marital discord. The category also includes married persons living apart because either the husband or wife was employed and living at a considerable distance from home, was serving away from home in the Armed Forces, had moved to another area, or had a different place of residence for any other reason except separation as defined above.

Children ever born. The term "children ever born" refers to the total number of live births reported by women. Included in the number are children born to the woman before her present morriage, children no longer living, and children away from home, as well as children who were still living in the home.

Births to date. In the data on birth expectations in table E, the number of "births to date" has the same meaning as the number of children ever born.

Future births expected. In the data on birth expectations in table E, the number of "future births expected" refers to any births a woman expects in addition to the children she has already borne, if any.

Lifetime births expected. In the data on birth expectations in table E, the number of "lifetime births expected refers to the

sum of births to date and future births expected. The sum represents the total number of births a woman expects during her lifetime.

Labor force and employment status. The definitions of labor force and employment status in this report relate to the population 14 years old and over.

Labor force. Persons are classified as in the labor force if they were employed as civilians, unemployed, or in the Armed Forces during the survey week. The "civilian labor force" is comprised of all civilians classified as employed or unemployed.

Employed. Employed persons comprise (1) all civilians who, during the specified week, did any work at all as paid employees or in their own business or profession, or on their own farm, or who worked 15 hours or more as unpaid workers on a farm or in a business operated by a member of the family, and (2) all those who were not working but who had jobs or businesses from which they were temporarily absent because of illness, bad weather, vacation, or labormanagement dispute, or because they were taking time off for personal reasons, whether or not they were paid by their employers for time off, and whether or not they were seeking other jobs. Excluded from the employed group are persons whose only activity consisted of work around the house (such as own home housework, painting or repairing own home, etc.) or volunteer work for religious, charitable, and similar organizations.

Unemployed. Unemployed persons are those civilians who, during the survey week, had no employment but were available for work and (1) had engaged in any specific job-seeking activity within the past 4 weeks, such as registering at a public or private employment office, meeting with prospective employers, checking with friends or relatives, placing or answering advertisements, writing letters of application, or being on a union or professional register; (2) were waiting to be called back to a job from which they had been laid off; or (3) were waiting to report to a new wage or salary job within 30 days.

Not in the labor force. All civilians 14 years old and over who are not classified as employed or unemployed are defined as "not in the labor force." This group who are neither employed nor seeking work includes persons engaged only in own home housework, attending school, or unable to work because of long-term physical or mental illness; persons who are retired or too old to work; seasonal workers for whom the survey week fell in an off season; and the voluntarily idle. Persons doing only unpaid family work (less than 15 hours during the week surveyed) are also classified as not in the labor force.

Agriculture. The industry category "agriculture" is somewhat more inclusive than the total of the two major occupation groups, "farmers and farm managers" and "farm laborers and supervisors." It also includes (1) persons employed on farms in occupations such as truck driver, mechanic, and bookkeeper, and (2) persons engaged in certain activities other than strictly farm operation such as cotton ginning, contract farm services, veterinary and breeding services,

hatcheries, experimental stations, greenhouses, landscape gardening, tree service, trapping, hunting preserves, and kennels.

Nonagricultural industries. This category includes all industries not specifically classed under agriculture.

Multiple jobs. Persons with two or more jobs during the survey week were classified as employed in the industry in which they worked the greatest number of hours during the week. Consequently, some of the persons shown in this report as engaged in nonagricultural activities also engaged in agriculture and vice versa.

#### Class of Worker:

Self-employed workers. Persons who worked for profit or fees in their own business, profession, or trade, or who operated a farm either as an owner or tenant.

Wage and salary workers. Persons who worked for any governmental unit or private employer for wages, salary, commission, tips, pay "in kind," or at piece rates.

Unpaid family workers. Persons who worked 15 hours or more per week without pay on a farm or in a business operated by a person to whom they are related by blood or marriage.

Money income. Data on income collected in the CPS are limited to money income received before payments for personal income taxes and deductions for Social Security, union dues, Medicare premiums, etc. Money income is the sum of the amounts received from earnings (including losses which occurred among the self-employed from their own farm or nonfarm operations); Social Security and public assistance payments; Supplemental Security income; dividends, interest, and rent (including losses); unemployment and workmen's compensation; government and private employee pensions; and other periodic income. Therefore, money income does not reflect the fact that many families receive part of their income in the form of nonmoney transfers such as food stamps, health benefits, and subsidized housing; that many farm families receive nonmoney income in the form of rent-free housing and goods produced and consumed on the farm; or that nonmoney incomes are also received by some nonfarm residents such as the use of business transportation and facilities, full or partial payments by business for retirement programs, medical and educational expenses, etc. These elements should be considered when comparing income levels.

Receipts from the following sources are not included as income: (1) Money received from the sale of property, such as stocks, bonds, a house, or a car (unless the person was engaged in the business of selling such property, in which case the net proceeds would be counted as income from self-employment); (2) withdrawals of bank deposits; (3) money borrowed; (4) tax refunds; (5) gifts; and (6) lump-sum inheritances or insurance payments.

Family income. The total income of a family is the algebraic sum of the amounts received by all income recipients in the family.

In the income distribution for families, the lowest income group (less than \$4,000) includes those families who were classified as having no income in the income year and those reporting a loss in net income from farm and nonfarm self-employment or in rental income. Many of these were living on income "in kind," savings, or gifts; or were newly constituted families, or families in which the sole breadwinner had recently died or had left the household. However, many of the families who reported no income probably had some money income which was not recorded in the survey.

It should be noted that although the income statistics

refer to receipts during the preceding year, the composition of families refers to the time of the survey. The income of the family does not include amounts received by persons who were members of the family during all or part of the income year if these persons no longer resided with the family at the time of enumeration. On the other hand, family income includes amounts reported by related persons who did not reside with the family during the income year but who were members of the family at the time of enumeration. Poverty (low-income) classification. Families are classified as being above or below the poverty level using the poverty index adopted by a Federal Inter-agency Committee in 1969. This index is based on the Department of Agriculture's 1961 Economy Food Plan and reflects the different consumption requirements of families based on their size and composition, sex and age of the family head, and farm-nonfarm residence. It was determined from the Department of Agriculture's 1955 survey of food consumption that families of three or more persons spend approximately onethird of their income on food; the poverty level for these families was, therefore, set at three times the cost of the economy food plan. For smaller families and persons living alone, the cost of the economy food plan was multiplied by factors that were slightly higher in order to compensate for the relatively larger fixed expenses of these smaller households. The poverty thresholds are updated every year to reflect changes in the Consumer Price Index (CPI). The poverty threshold for a nonfarm family of four was \$6,662 in 1978, about 7.6 percent higher than the comparable 1977 cutoff of \$6,191. For further details, see Current Population Reports, Series P-60, No. 119.

Median. The median is the value which divides a distribution into two equal parts; one-half of the cases falling below this value and one-half of the cases exceeding this value.

Symbols. A dash (-) represents zero or a number which rounds to zero. The symbol "B" means that the base for the derived figure is less than 75,000, and an "X" means not applicable.

Rounding. The individual figures in this report are rounded to the nearest thousand. With few exceptions, the individual figures have not been adjusted to group totals, which are independently rounded. Percentages are rounded to the nearest tenth of a percent; therefore, the percentages in a distribution do not always add to exactly 100.0 percent. The totals, however, are always shown as 100.0. Percentages are based on the rounded absolute numbers.



## Appendix B. Source and Reliability of the Estimates

#### SOURCE OF DATA

Estimates in this report were primarily derived from data obtained from the Current Population Survey (CPS) of the Bureau of the Census. Most of these CPS estimates are April-centered five-quarter averages. Data on income, fertility, and multiple job holding characteristics of farm and non-farm families, however, are monthly estimates obtained from supplementary questions to CPS. Additional data, as identified in the text, were obtained from the 1974 Census of Agriculture.

Current Population Survey (CPS). The monthly CPS deals mainly with labor force data for the civilian noninstitutional population. Questions relating to labor force participation are asked about each member 14 years old and older in each sample household. In addition, supplementary questions are asked each March, May, and June about income, multiple job holdings, and fertility, respectively. Estimates developed from the supplementary questions asked in March and included in this report include persons in the Armed Forces living off post or with their families on post.

The present CPS sample was initially selected from the 1970 census files and is updated continuously to reflect new construction (see section, Nonsampling Variability, below). The monthly CPS sample is spread over 614 areas with coverage in each of the 50 States and the District of Columbia. The CPS sample areas comprised 1,113 counties, independent cities, and divisions in the Nation.

Samples for previous designs were selected from files from the most recently completed census. The following table provides a description of some aspects of the CPS sample designs in use during the referenced data-collection periods.

The estimation procedure used in this survey involved the inflation of the weighted sample results to independent estimates of the total civilian noninstitutional population of the United States, by age, race, and sex. These independent estimates were based on statistics from decennial censuses; statistics on births, deaths, immigration, and emigration; and statistics on the strength of the Armed Forces. The estimation procedure for the data from the March supplement involved a further adjustment so that husband and wife of a household received the same weight.

#### RELIABILITY OF THE ESTIMATES

Since the CPS estimates in this report are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken using the same questionnaire, instructions, and enumerators. There are two types of errors possible in an estimate based on a sample survey—sampling and non-sampling. The standard errors provided for this report primarily indicate the magnitude of the sampling error. They also partially measure the effect of some nonsampling errors in response and enumeration, but do not measure any systematic biases in the data. The full extent of non-sampling error is unknown. Consequently, particular care should be exercised in the interpretation of figures based on a relatively small number of cases or on small differences between estimates.

Nonsampling variability. Nonsampling errors can be attributed to many sources, e.g., inability to obtain information about all cases in the sample, definitional difficulties, differences in the interpretation of questions, inability or unwillingness on the part of respondents to provide correct

#### **Description of the Current Population Survey**

Time period	Number of	Households		
	sample areas <sup>1</sup>	Interviewed	Not interviewed	Housing units visited, not eligible <sup>2</sup>
October 1977 to Present	614 461 449 449	53,500 45,000 45,000 48,000	2,500 2,000 2,000 2,000	9,500 8,000 8,000 8,500

<sup>&</sup>lt;sup>1</sup>These sample areas were chosen to provide coverage in each State and the District of Columbia.

<sup>2</sup>These are housing units which were visited, but were found to be vacant or otherwise not eligible for interview.

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23

information, inability to recall information, errors made in collection such as in recording or coding the data, errors made in processing the data, errors made in estimating values for missing data, and failure to represer. All units within the sample (undercoverage).

Undercoverage in the CPS results from missed housing units and missed persons within sample households. Overall undercoverage, as compared to the level of the decennial census, is about 5 percent. It is known that CPS undercoverage varies with age, sex, and race. Generally, undercoverage is larger for males than for females and larger for Blacks and other races than for Whites. Ratio estimation to independent age-sex-race population controls, as described previously, partially corrects for the bias due to survey undercoverage. However, biases exist in the estimates to the extent that missed persons in missed households or missed persons in interviewed households have different characteristics than interviewed persons in the same age-sex-race group. Further, the independent population controls used have not been adjusted for undercoverage in the 1970 census, which was estimated at 2.5 percent of the population with similar undercoverage differentials by age, sex, and race as are observed in CPS.

Sampling variability. The standard errors given in the following tables are primarily measures of sampling variability, that is, of the variation that occurred by chance because a sample rather than the entire population was surveyed. The sample estimate and its estimated standard error enable one to construct confidence intervals, ranges that would include the average results of all possible samples with a known probability. For example, if all possible samples were selected, each of these surveyed under essentially the same general conditions and using the same sample design, and an estimate and its estimated standard error were calculated from each sample, then:

- Approximately 68 percent of the intervals from one standard error below the estimate to one standard error above the estimate would include the average result of all possible samples.
- Approximately 90 percent of the intervals from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate would include the average result of all possible samples.
- Approximately 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate would include the average result of all possible samples.

The average estimate derived from all possible samples is or is not contained in any particular computed interval. However, for a particular sample, one can say with a specified confidence that the average estimate derived from all possible samples is included in the confidence interval.

All the statements of comparison appearing in the text are significant at a 1.6-standard-error level or better, and most are significant at a level of more than 2.0 standard errors. This means that for most differences cited in the

text, the estimated difference is greater than twice the standard error of the difference. Statements of comparison qualified in some way (e.g., by use of the phrase, some evidence) have a level of significance between 1.6 and 2.0 standard errors.

Metropolitan-nonmetropolitan area estimates. Caution should be exercised in comparing metropolitan and nonmetropolitan area estimates from 1976 and later years to each other and to those from earlier years. Methodological and sample design changes have occurred in these recent years resulting in relatively large differences in the metropolitan and nonmetropolitan area estimates.

Note when using small estimates. Summary measures such as medians, rates and percent distributions are shown in the report only when the base is 75,000 or greater. Because of the large standard errors involved, there is little chance that summary measures would reveal useful information when computed on a smaller base. Estimated numbers are shown, however, even though the relative standard errors of these numbers are larger than those for corresponding percentages. These smaller estimates are provided primarily to permit such combinations of the categories to serve each data user's needs.

#### STANDARD ERROR TABLES AND THEIR USE

In order to derive standard errors that would be applicable to a large number of estimates and could be prepared at a moderate cost, a number of approximations were required. Therefore, instead of providing an individual standard error for each estimate, generalized sets of standard errors are provided for various types of characteristics. As a result, the sets of standard errors provided give an indication of the order of magnitude of the standard error of an estimate rather than the precise standard error.

The figures presented in tables B-1, B-2, B-3, and B-4 provide approximations to the standard errors of various estimates for families and for persons. The figures shown in table B-6 provide standard errors for number of children ever born and number of expected lifetime births per 1,000 women. Estimated standard errors cannot be obtained from tables B-1, B-2, B-3, and B-4 without the use of the factors in table B-5. The factors in table B-5 must be applied to the generalized standard errors in order to adjust for the combined effect of sample design and the estimating procedure on the value of the characteristic. The standard error tables with which each factor should be used are also indicated in table B-5. Standard errors for intermediate values not shown in the generalized tables of standard errors may be approximated by interpolation.

Two parameters (denoted a and b) are used to calculate standard errors for each type of characteristic; they are presented in table B-5. These parameters were used to calculate the standard errors in tables B-1, B-2, B-3 and B-4 and to calculate the factors in table B-5. They also may be used to calculate the standard errors for estimated numbers and estimated percentages directly. Methods for direct computation are given in the following sections.

Table B-1. Standard Errors of Estimated Numbers of Persons or Families in the Farm Population

(68 chances out of 100. Numbers in thousands)

Size of estimate	Standard error
25	8
50	11
100	16
250	25
500	35
1,000	49
2,500	78
5,000	109
10,000	152
15,000	184

Note: For a particular characteristic, see table B-5 for the appropriate factor to apply to the above standard errors. For standard errors for regional data (North and West, South), multiply the standard errors obtained above by 1.4.

Standard errors of estimated numbers. The approximate standard error,  $\sigma_{\rm X}$ , of an estimated number shown in this report can be obtained in two ways. It may be obtained by use of the formula

$$\sigma_{\mathbf{X}} = \mathbf{f}\sigma$$
 (1)

where f is the appropriate factor from table B-5 and  $\sigma$  is the standard error on the estimate obtained by interpolation from table B-1 or B-2. Alternatively, standard errors may be approximated by formula (2) from which the standard errors were calculated in tables B-1 and B-2. Use of this formula will provide more accurate results than the use of formula (1) above.

$$\sigma_{\mathbf{v}} = \sqrt{\mathbf{a}\mathbf{x}^2 + \mathbf{b}\mathbf{x}} \tag{2}$$

Here x is the size of the estimate and a and b are the parameters in table B-5 associated with the particular type of characteristic.

Standard errors of estimated percentages. The reliability of an estimated percentage, computed using sample data for both numerator and denominator, depends on both the size of the percentage and the size of the total upon which this percentage is based. Estimated percentages are relatively more reliable than the corresponding estimates of the numerators of the percentages, particularly if the percentages are 50 percent or more. When the numerator and denominator of the percentage are in different categories, use the factor of parameters indicated by the numerator. The approximate standard error,  $\sigma_{(X,P)}$ , of an estimated percentage can be obtained by use of the formula

$$\sigma_{(\mathbf{x},\mathbf{p})} = \mathbf{f}\sigma$$
 (3)

In this formula f is the appropriate factor from table B-5 and  $\sigma$  is the standard error on the estimate from table B-3 or B-4. Alternatively, the standard errors may be approximated by formula (4), from which the standard errors in table B-3 and B-4 were calculated; direct computation will give more accurate results than use of the standard error table and the factors.

$$\sigma_{(x,p)} = \sqrt{\frac{b}{x} \cdot p (100 - p)}$$
 (4)

Here x is the size of the subclass of persons or families which is the base of the percentage, p is the percentage ( $0 \le p \le 100$ ), and b is the parameter in table B-5 associated with the particular type of characteristic in the numerator of the percentage.

Illustration of the use of standard error tables. Table H of the report shows that 1,661,000 farm residents 14 years old and over were employed in agriculture. Table B-5 shows that for Total Farm Population, Agriculture Employment, the appropriate factor is 1.0, and this factor is to be used with the standard error obtained from table B-1. Interpolation in table B-1 shows the standard error  $(\sigma_X)$  on an estimate of this size to be approximately 62,000. Applying the factor 1.0 and using formula (1) would also yield a standard error of 62,000. The 68 percent confidence interval as shown by the data is from 1,599,000 to 1,723,000. Therefore, a conclusion that the average estimate derived from all possible samples

Table B-2. Standard Errors of Estimated Numbers of Persons or Families in the Total or Nonfarm Population

(68 chances out of 100. Numbers in thousands)

	*** ***********************************
Size Of estimate	Standard error
25	5
50	7
100	10
250	16
500	7.7
1,000	23
2,500	33
5 000	52
5,000	73
10,000	102
15,000	123
25,000	155
50,000	204
100,000	241
150,0001	223

<sup>1</sup>To derive the standard errors for an estimate greater than 150,000,000 use formula (2).

Note: For a particular characteristic, see table B-5 for the appropriate factor to apply to the above standard errors. For standard errors for regional data (North and West, South), multiply the standard errors obtained above by 1.4.

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lies within a range computed in this way would be correct for roughly 68 percent of all possible samples. Similarly we could conclude that the average estimate derived from all possible samples lies within the interval from 1,537,000 to 1,785,000 (using twice the standard error) with 95 percent confidence. As an alternative, using formula (2) and the parameters a = -0.000014 and b = 2455 from table B-5 gives an estimate of the standard error to be 64,000.

Table H also shows that of the 330,000 fc. sale farm residents employed in agriculture, 58,000 or 17.6 percent are wage and salary workers.

Table B-5 shows the b parameter for this characteristic to be 2455; using formula (4), the standard error on an estimate of 17.6 percent is

$$\sqrt{\frac{2455}{330.000}}$$
 (17.6) (100.0 – 17.6)  $\doteq$  3.3 percent

Consequently, the 68-percent confidence interval is from 14.3 to 20.9 percent. Therefore, a conclusion that the average estimate derived from all possible samples lies within

Table B-3. Standard Errors of Estimated Percentages of Persons or Families in the Farm Population

Base of percentages (thousands)		Estimated percentages							
	1 or 99	2 or 98	5 or 95	10 or 90	25 or 75	50			
25	3.1	4.4	6.8	9.4	13.6	15.7			
50	2.2	3.1	4.8	6.6	9.6	13.3			
100	1.6	2.2	3.4	4.7	6.8	7.8			
250	1.0	1.4	2.2	3.0	4.3	5.0			
500	0.7	1.0	1.5	2.1	3.0	3.			
1,000	0.5	0.7	1.1	1.5	2.1	2.			
2,500	0.3	0.4	0.7	0,9	1.4	1.0			
5,000	0.2	0.3	0.5	0.7	1.0	1.			
10,000	0.2	0.2	0.3	0.5	0.7	0.			
15,000	0.13	0.2	0.3	0.4	0.6	0.			

Note: For a particular characteristic, see table B-5 for the appropriate factor to apply to the above standard errors. For standard errors for regional data (North and West, South), multiply the standard errors obtained above by 1.4.

Table B-4. Standard Errors of Estimated Percentages of Persons or Families in the Total or Nonfarm Population

Base of percentages		Estimated percentages							
(thousands)	1 or 99	2 or 98	5 or 95	10 or 90	25 or 75	50			
25	2.1	2.9	4.5	6.2	9:0	10.4			
50	1.5	2.1	3.2	4.4	6.4	7.4			
100	1.0	1.5	2.3	3.1	4.5	5.2			
250	0.7	0.9	1.4	2.0	2.8	3.3			
500	0.5	0.7	1.0	1.4	2.0	2.3			
1,000	0.3	0.5	0.7	1.0	1.4	1.6			
2,500	0.2	0.3	0.5	0.6	0.9	1.0			
5,000	0.15	0.2	0.3	0.4	0.6	0.7			
10,000	0.10	0.15	.0.2	0.3	0.5	0.5			
15,000	0.03	0.12	0.19	0.3	0.4	0.4			
25,000	0.07	0.09	0.14	0.2	0.3	0.3			
50,000	0.05	0.07	0.10	0.14	0.2	`0.2			
100,000	0.03	0.05	0.07	0.10	0.14	0.16			
150,000	0.03	0.04	0.06	0.08	0.12	0.13			
200,000	0.02	0.03	0.05	0.07	0.10	0.12			
216,000	0.02	0.03	0.05	0.07	U.10	0.11			

Note: For a particular characteristic, see table B-5 for the appropriate factor to apply to the above standard errors. For standard errors for regional data (North and West, South), multiply the standard errors obtained above by 1.4.



26

a range computed in this way would be correct for roughly 68 percent of all possible samples. Similarly, we could conclude with 95-percent confidence that the average estimate derived from all possible samples lies within the interval from 11.0 to 24.2 percent, i.e., 17.6  $\pm$  (2 x 3.3) percent. As an alternative, tables B-3 and B-5 can be used to compute an estimated standard error of 3.3 x 1.0 = 3.3 percent on the estimate of 17.6 percent.

Standard error of a difference. For a difference between two sample estimates, the standard error is approximately equal to

$$\sigma_{(x-y)} = \sqrt{\frac{\sigma^2 + \sigma^2}{x + y}}$$
 (5)

where  $\sigma_{\rm X}$  and  $\sigma_{\rm Y}$  are the standard errors of the estimates x and y; the estimates can be of numbers, percents, ratios, etc.

Table B-5. Parameters and Factors to be Used to Obtain Standard Errors for Each Type of Characteristic

Type of characteristic	Para	meters			
Type of characteristic	а	b	f factors	Standard error	
FIVE-QUARTER AVERAGES					
Farm Population					
Race, age, sex, and employment subsets					
Total farm population, agriculture employ-					
ment, or nonagriculture employment					
All Races	-0.000014	2455	1.0	B-1, B-3	
Spanish	-0.000016	3087	1.1	B-1, B-3	
Unemployed		i .			
Total or White	-0.000006	1054	0.7	B-1, B-3	
Black and other races	-0.000053	1211	0.7	в-1, в-3	
Spanish	-0.00000 <b>3</b>	997	0.6	B-1, B-3	
Total or Nonfarm Population					
Population (race, age, sex)			}		
Total or White	0.0	0 '	0.0	B-2, B-4	
Black or other races	0.0	0	0.0	B-2, B-4	
Spanish	-0.000022	3884	1.9	B-2, B-4	
Employment Subsets				- <b>,</b>	
Agriculture employment			!		
All Races	-0.000017	2050	1.4	B-2, B-4	
Spanish	-0.000018	2586	1.0	B-2, B-4	
Nonagriculture employment		_	· .		
Total or White	-0.000008	1081	1.0	B-2, B-4	
Male	-0.000513	935	0.9	B-2, B-4	
Female	-0.000010	801	0.9	B-2, B-4	
Black and other races	-0.000069	1081	1.0	B-2, B-4	
Male	-0.000115	935	0.9	B-2, B-4	
Female	-0.000079	801	0.9	B-2, B-4	
SpanishUnemployed	-0. <b>0</b> 00009	1356	1.1	B-2, B-4	
Both sexes, male or female	-0.000004	552	0.7	D_2 D /	
Regional or Metropolican-Nonmetropolitan		332	""	B-2, B-4	
Residence					
Farm				*	
Total or White	-0.000017	5036	1.4	B-1, B-3	
Black and other races	-0.000262	8765	1.9	B-1, B-3	
Total or Nonfarm			]	,	
Total or White	-0.000010	2212	1.4	B-2, B-4	
Black and other races	-0.000160	3849	1.9	B-2, B-4	
CONTHLY LEVEL					
Pamily Income					
Total farm population	-0.000011	3167	1.1	B-1, B-3	
Total nonfarm population.	-0.000010	1721	1.3	B-1, B-3 B-2, B-4	

Note: For regional (North and West, South) data cross-tabulated with other data, apply a factor of 2.0 to the parameters for the charcteristic of interest.



This will represent the actual standard error quite accurately for the difference between two estimates of the same characteristic in two different areas, or for the difference between separate and uncorrelated characteristics in the same area. If, however, there is a high positive (negative) correlation between the two characteristics, the formula will overestimate (underestimate) the true standard error.

Illustration of the computation of the standard error of a difference between estimated percentages. Table H of this report shows that 17.6 percent of all female farm residents employed in agriculture (330,000), were wage and salary workers. The corresponding percentage for all females employed in agriculture who were self-employed is 29.1 percent. Thus, the apparent difference in percents of female wage and salary workers and self-employed workers employed in agriculture is 11.5 percent. Using formulas (4) and (5), the standard error of the estimated difference of 11.5 percent is about

$$\sqrt{(3.3)^2 + (3.9)^2} \doteq 5.1$$

This means the 68-percent confidence interval around the difference is from 6.4 to 16.6 percent. Therefore, a conclusion that the average difference derived from all possible samples lies within a range computed in this way would be correct for roughly 68 percent of all possible samples. With 95-percent confidence, the average difference derived from all possible samples would lie within the interval from 1.3 to 21.7 percent, i.e.,  $11.5 \pm (2 \times 6.1)$  percent.

Standard error of a median. The sampling variability of an estimated median depends upon the form of the distribution as well as the size of its base. An approximate method for measuring the reliability of a median is to determine an interval about the estimated median, such that there is a stated degree of confidence that the average median derived from all possible samples lies within the interval. The following procedure may be used to estimate the 68 percent confidence limits of a median based on sample data.

 Determine, using the standard error tables and factors or formula (4), the standard error of the estimate of 50 percent from the distribution.

- 2. Add to and subtract from 50 percent the standard error determined in step 1.
- 3. Using the distribution of the characteristic, calculate the confidence interval corresponding to the two points established in step 2.

A 95-percent confidence interval may be determined by finding the values corresponding to 50 percent plus and minus twice the standard error determined in step 1.

Illustration of the computation of a confidence interval for a median. Table I of this report shows that the median income for nonfarm families, according to the current definition of a farm is \$17,710. The size, or base, of the distribution from which this median was determined is 56,101,000 families.

- 1. Using formula (4), the standard error of 50 percent on a base of 56,101,000 is about 0.3 percent.
- 2. To obtain a 95-percent confidence interval on an estimated median, add to and subtract from 50 percent twice the standard error found in step 1. This yields percent limits of 49.4 and 50.6.
- 3. Since 40.5 percent of the families had income below \$15,000 and 16.9 percent had income between \$15,000 and \$20,000, the dollar value of the lower limit may be found by linear interpolation to be:

$$$15,000 + ($20,000 - $15,000) \left( \frac{49.4 - 40.5}{16.9} \right) = $17,633$$

Similarly, the dollar value of the upper limit may be found by linear interpolation to be about

$$$15,000 + ($20,000 - $15,000) \left( \frac{50.6 - 40.5}{16.9} \right) = $17,988$$

The 95-percent confidence interval on the estimated median is from \$17,633 to \$17,988. Therefore, a conclusion that the average estimated median income, derived from all possible samples, lies within a range computed in this way would be correct for roughly 95 percent of all samples.

Table B-6. Standard Errors of Estimated Fertility Ratios for the Total or Nonfarm Population

Number of women (thousands)	Children ever born or expected per 1,000 women							
	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000
250	51	93	129	164	198	234	274	315
500	36	66	92	116	140	166	194.	222
750	30	54	74	95	114	135	158	181
1,000	26	47	65	82	99	117	137	158
2,000	18	33	45	58	70	83	97	112
5,000	11	20	29	37	44	52	61	70
10,000	9	15	20	26	31	38	44	50
15,000	7	12	16	21	26	29	35	41
20,000	6	11	15	19	23	27	31	35
25,000	5	9	12	16	20	24	28	32

Note: To derive the standard errors for the farm population, multiply the standard errors obtained above by 1.1.

